REMARKS

Claims 35-68 are currently pending in this application. Claims 35, 64 and 66 have been amended. Claims 36-63 have been canceled. No new matter has been added. In view of these amendments and of the following remarks, Applicants submit that all the claims are in condition for allowance.

Claims 35-68 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-25 of copending Application No. 10/627,314 (hereinafter "the '314 application"). The Examiner asserts that although the conflicting claims are not identical, claim 1 of the '314 application encompasses the instant claims. The Examiner further asserts that the other claims of the '314 application render the claims of the present invention obvious because a bone composition and an amphiphilic antimicrobial agent of a histatin analogue are claimed.

Applicants point out that the present application has a priority date of July 2, 1998. The '314 application (published as US 2004/0131678A1) has a priority date of February 1, 2001. Because the present application has an earlier priority date than the '314 application, Applicants respectfully request that the obviousness-type double patenting rejection be withdrawn.

Claims 35-68 stand rejected under 35 U.S.C. 112, second paragraph, for purported indefiniteness. The Examiner asserts that the meaning of "domain" is unclear, the size of the peptides/proteins are indefinite, and there is no antecedent basis for "The" in claim 66. The term "domain" no longer is recited in the claims and claim 66 has been amended to replace "The" with "A," as suggested by the Examiner. Applicants submit that these rejections now are obviated.

Claims 35-41, 50-56 and 58-64 stand rejected under 35 U.S.C. 112, first paragraph, for purported lack of enablement. The Examiner, in pertinent part, asserts that one skilled in the art would know how to synthesize a peptide in general, but not know how to combine the plurality of amino acids to synthesize all microbial analogues of histatin. In addition, claims 35-41, 50-56 and 58-65 stand rejected under 35 U.S.C. 112, first paragraph, for purported lack of written description. The Examiner, in pertinent part, asserts that while having

written description of histatin derivatives and compounds identified in the specification and tables and/or examples, the specification is void of any peptides or organic molecules that qualify for the functional characteristics claimed as the biomolecules, and polymers with functional characteristics that qualify.

Claim 35 has been amended to particularly recite the recitations of claims 47, 48 and 57, namely, that the antimicrobial peptides of the present invention consist of SEQ ID NOs: 7, 8 and 9; and claims 36-63 have been canceled. Based on these amendments and because claim 64 depends from amended claim 35, as well as the fact that claims 47, 48 and 57 are not included in the enablement and written description rejections, Applicants submit that these rejections are obviated.

Claims 35-68 stand rejected under 35 U.S.C. 103(a) for purported obviousness in view of Hamanishi et al. and Helmerhorst et al. The Examiner asserts that it would be obvious to modify the method of treating osteomyelitis by using the bone cement of Hamanishi et al. to incorporate a broader based antimicrobial peptide of histatin analogues as taught by Helmerhorst et al.

Claim 35 has been amended to particularly recite the recitations of claims 47, 48 and 57, namely, that the antimicrobial peptides of the present invention consist of SEQ ID NOs: 7, 8 and 9. Applicants point out that nowhere in Hamanishi et al. or in Helmerhorst et al. are SEQ ID NOs: 7, 8 or 9 taught or suggested. In particular, although Helmerhorst et al. disclose the use of microbial peptides, they are not the peptides of the claimed invention having the amino acid sequences of SEQ ID NOs: 7, 8 and 9. Furthermore, Helmerhorst et al. does not teach or suggest using their peptides in the context of bone cement. Thus, Applicants submit that Hamanishi et al. and Helmerhorst et al., neither alone nor in combination, teach or suggest the antimicrobial peptides of the claimed invention, namely, SEQ ID NOs: 7, 8 and 9, wherein these antimicrobial peptides are used in bone material and are released and distributed homogeneously into the surrounding area of the bone material, which then forms bone cement after curing.

Claims 35-40, 50-56 and 58-64 stand rejected under 35 U.S.C. 102(b) for purported anticipation by Haque as evidenced by Meisel. Claim 35 has been amended to recite the limitations of claims 47, 48 and 57, namely, that the antimicrobial peptides of the present

invention consist of SEQ ID NOs: 7, 8 and 9; and claims 36-63 have been canceled. Because claim 64 depends from amended claim 35, Applicants submit that this rejection is obviated.

For all of the foregoing reasons, amended claims 35, 64 and 66 are in condition for allowance. Reconsideration of the rejections and allowance of all pending claims 35 and 64-68 are respectfully requested.

Respectfully submitted,

THE WEBB LAW FIRM, P.C.

By 

Gwen R. Wood, Ph.D.
Registration No. 51,027
Attorney for Applicants
700 Koppers Building
436 Seventh Avenue
Pittsburgh, PA 15219-1818
Telephone: 412-471-8815
Facsimile: 412-471-4094
E-mail: webblaw@webblaw.com